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/* 03/06/03 by Slava Barsuk */ Source code of program in C
programming language. This portion of code implements part of
claim 9 - sending a call to the remote server
/* power reset client code */
/* v1.0.0.0           */

#include <stdio.h> definition of miscellaneous C headers
#include <unistd.h>
#include <sys/ioctl.h>
#include <sys/types.h>
#include <sys/socket.h>
#include <netinet/in.h>
#include <netdb.h>
#include <string.h>
#include <strings.h>

void main(int argc, char *argv[]) main body starts here
{
    int sock, rc, NB, len; definition of data structures
    struct sockaddr_in server;
    struct hostent *hp, *gethostbyname();
    struct servent *port;
    char hostname[50];
    char buf[1024];
    char wbuf[256];
    int rbuf[2]={4,12};
    actual executable code starts here
    if(getuid()!=0)      exit(); check user id of command issuer.
must be root (superuser), if not, program exits
    if(argc<2) check that there are at least 2 command line
arguments, if not print prompt message about command usage and
exit program
    { fprintf(stderr,"--- Usage:\n\t%s <hostname>\n[-r|-h]\n", argv[0]);
      exit(4); }

    len=1024;
    strcpy(hostname,argv[1]); accept destination server (remote
server) hostname
    port=getservbyname("pwrport",0); resolve tcp communication
port for further communication

    sock=socket(AF_INET,SOCK_STREAM,0); create and initialize
tcp socket structure
    server.sin_family=AF_INET; set socket type
    server.sin_len=sizeof(server);
    hp=gethostbyname(hostname); set destination hostname
    bcopy(hp->h_addr,&server.sin_addr, hp->h_length);

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server.sin_port=htons(port->s_port); set destination port
rc=connect(sock,(struct sockaddr *)&server,sizeof(server));
- establish connection with remote machine on tcp socket

if(rc!=0) {fprintf(stderr,"--- can't establish connect\n");
exit(4);} check that connection was established successfully ( rc
should be 0), if not display error message and exit program
if(strcmp(argv[2],"-r")==0) analyze remote operation request
- "-r" stands for reboot
{
    fprintf(stderr,"attempt to reboot\n"); display
message that request is for reboot
    rbuf[1]=12; place reboot request code (12) into
buffer
    write(sock, rbuf,8); send message to remote
machine ( write contents of memory reffered as rbuf of size 8
bytes into tcp socket sock) claim 9
}
else if(strcmp(argv[2],"-h")==0)if request was not for
reboot "-r", check whether it is for power off(halr) - "-h"
{
    fprintf(stderr,"attempt to halt\n"); display
message that request is for power off(halt)
    rbuf[1]=13; place power off request code(13) into
buffer
    write(sock, rbuf,8);send message to remote
machine( write contents of memory reffered as rbuf of size 8
bytes into tcp socket sock) - claim 9
}
close(sock); close connection on tcp socket
}

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dir_list.txt

total 360						
-rw-r-----	1 root	sys	1274	Feb 13 2003	pwrst.c	
-rw-r----r-	1 root	sys	1357	Feb 13 2003	pwrhd.c	
-rw-r----r-	1 root	sys	3734	Feb 13 2003	pwrhd	
-rw-r-----	1 root	sys	1436	Feb 13 2003	pwron.c	
-rwxr-xr-x	1 root	sys	6083	Feb 13 2003	pwron	
-rwxr-xr-x	1 root	sys	5883	Feb 13 2003	pwrst	
-rwx-----	1 root	system	288	Feb 13 2003	pwr_up	
-rw-r-----	1 root	sys	1620	Feb 13 2003		
pstatus.c						
-rwxr-xr-x	1 root	sys	6179	Feb 13 2003	pstatus	
-rwx-----	1 root	system	274	Feb 13 2003		
pwrstatus						
-rwx-----	1 root	system	972	Mar 03 2003	pwrreset	
-rw-r-----	1 root	sys	1290	Mar 06 2003	rescl.c	
<u>- source file of reset initiator program</u>						
<u>- compiled file of reset initiator prog.</u>						
-rw-r----r-	1 root	sys	3983	Mar 06 2003	rescl -	
<u>- source file "pinned" program</u>						
-rwx-----	1 root	system	1738	Mar 31 2003	res.c	
<u>- compiled file "pinned" program</u>						
-rw-r----r-	1 root	sys	4305	Mar 31 2003	res	
-rwxr-xr-x	1 root	system	61440	Oct 14 2003	pwr.tar	
-rw-r----r-	1 root	system	7910	Oct 06 2005	resclx	
-rw-r----r-	1 root	system	1857	Oct 06 2005	resx.c	
-rwxr-xr-x	1 root	system	11134	Oct 06 2005	resx	
-rw-r----r-	1 root	system	1433	Oct 28 2005	resclx.c	
-rwxr-xr-x	1 root	system	6536	Oct 28 2005	rr	
-rw-r----r-	1 root	system	8000	Oct 28 2005	wc	